

Student Perceptions of Interprofessional Valuing After a Tabletop Interprofessional Education Simulation

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Context: The focus of learning and working with professions outside of one's own is the essence of interprofessional education (IPE). Interprofessional education satisfies accreditation standards and is a high-impact teaching practice. Interprofessional education is often studied in nursing, medicine, and pharmacy; however, it has rarely been explored in athletic training.

Objective: To determine student perceptions of interprofessional valuing among a unique combination of disciplines.

Design: Survey.

Setting: Students were seated in interprofessional teams at round tables in a ballroom resembling a professional conference.

Patients or Other Participants: Forty prelicensure students participated in the tabletop simulation (athletic training = 12, dietetics = 9, nursing = 19). Of these participants, 36 completed the survey (athletic training = 9, dietetics = 8, nursing = 19).

Main Outcome Measure(s): Student teams were given 2 cases and were prompted to discuss and complete accompanying tasks. Debriefing followed each case. Afterward, students were asked to complete the questionnaire. The Interprofessional Socialization and Valuing Scale-24 (ISVS) was used to assess interprofessional beliefs, attitudes, and behaviors.

Results: The ISVS and factor means were near the top of the survey scale, indicating that students had positive perceptions of interprofessional roles and socialization. All disciplines reported strong beliefs, attitudes, and behaviors towards IPE. No significant differences on the ISVS or subscales were identified among the disciplines or between those with and without previous IPE experience. Analysis of items revealed low scores for athletic training students on being able to share and exchange ideas in a team discussion, an important interprofessional behavior.

Conclusions: A combination of factors including newness to IPE, fewer IPE experiences, and unequal ratios of professions represented in each group may explain why athletic training students reported more challenges with sharing and exchanging ideas. Conducting a tabletop IPE events may facilitate the development of interprofessional valuing and socialization.

Key Words: Athletic training, dietetics, interprofessional education, ISVS, nursing

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KEY POINTS

- Conducting an interprofessional education (IPE) tabletop simulation for professional prelicensure students is an efficacious and cost-effective educational strategy that may facilitate the development of interprofessional valuing and socialization.
- Tabletop IPE simulations employ active learning strategies which foster collaboration and teamwork with a variety of professions.
- More research is needed to better understand the long-term effects of early IPE interventions on continued socialization into productive positive health care teams once in the workplace.

INTRODUCTION

Interdisciplinary and multidisciplinary education concepts have been incorporated into the more inclusive concept of interprofessional education (IPE). How IPE is defined and implemented continues to require evaluation and inquiry. Berg-Weger and Schneider defined interdisciplinary collaboration as “an interpersonal process through which members of different disciplines contribute to a common product or goal.”^{1(p698)} Interprofessional education is defined as an educational process whereby professions learn with, from, and about each other to improve collaboration and quality of health care.² The Institute of Medicine (IOM)³ emphasizes the importance of IPE within its 5 core competencies: (1) provide patient-centered care, (2) work in interdisciplinary teams, (3) use evidence-based practice, (4) apply quality improvement, and (5) use informatics. The aim of interdisciplinary teams and/or IPE is to encourage teamwork, collaboration, and cooperation in order to provide coordinated patient care. It discourages professions and professionals from working in “silos.” Since the establishment of the IOM core competencies, IPE has been integrated into many health care professional education programs.^{4–6} Additionally, accrediting groups of health care programs have included IPE in professional standards for accreditation, further emphasizing its importance, and hold educational programs accountable for its implementation.

Interprofessional education is well established among health care professions such as nursing, medicine, and pharmacy. However, among other health care disciplines, the implementation of IPE is relatively new. The inclusion of IPE in athletic training education by the Commission on Accreditation of Athletic Training Education (CAATE) has started to evolve since the implementation of the *2012 Standards for Accreditation of Professional Athletic Training Programs*. These standards alluded to the implementation of IPE by establishing the requirement that “[s]tudents must interact with other medical and health care personnel.”^{7(p7)} However, in the CAATE’s *2020 Standards for Accreditation of Professional Athletic Training Programs*, IPE is explicitly stated as a core curricular

standard and is also included in the program delivery requirements where “planned interprofessional education is incorporated within the professional program.”^{4(p2)} Similarly, the Accreditation Council for Education in Nutrition and Dietetics added explicit IPE language in its 2017 standards, which state that graduate dietetics students must “[f]unction as a member of interprofessional teams.”^{8(p12)} Although IPE is not a new concept in health care, it is new to many athletic training programs. It is estimated that less than half of all accredited programs are currently participating in IPE.⁹

Interprofessional education as a pedagogical method not only satisfies accreditation standards and guidelines, but also is considered a high-impact teaching practice that uses active learning strategies.¹⁰ Therefore, there is a need to develop and report IPE activities that will provide a starting point for programs and faculty new to IPE so that accreditation standards can be fully met, but perhaps just as importantly for the successful learning experiences of students. Students who engage in active learning strategies undergo a deeper learning experience and develop critical thinking, problem-solving, communication, and interpersonal skills.¹⁰ These skills are vital to providing effective care by interprofessional teams.

Interprofessional education is valuable in transitioning individuals to interprofessional practice. The framework published in the 2010 World Health Organization report further states that “a collaborative practice-ready workforce is a specific way of describing health care workers who have received effective training in interprofessional education.”^{2(p196)} Interprofessional education acts as a vehicle to assist individual health professions’ students understand the roles and contributions of other health professions with the long-term goal of collaborative, team-based patient care.¹¹ The focus on learning and working with health professions outside of one’s own is the essence of IPE. Successful collaboration in health care requires acknowledgment that each profession has something of value to contribute and has equal opportunity and power to share specialized knowledge and skills. This can be challenging as individuals try to navigate the language, values, assumptions, biases, and priorities of other disciplines in the spirit of collaboration. If collaboration lacks valuing and inclusion of other health professions, the result may be uncoordinated services, inefficient use of resources, conflict, and ultimately less than optimal patient outcomes.

Recent studies have supported the need for exploring IPE competencies in prelicensure education.^{12–14} Therefore, the process by which prelicensure health care students learn socialization and valuing within the context of IPE is important to the transfer of this knowledge and experience to professional practice. Some prelicensure health care programs are not always represented in IPE activities, and each institution may not offer programs in health care

disciplines most commonly represented in the literature. Athletic training, specifically, has not traditionally been included and has only recently been required to engage in IPE. Therefore, a unique mix of disciplines, including athletic training, may fill gaps in the literature regarding interprofessional skills development. Three prelicensure programs were included in this study: bachelor of science in athletic training, master of science in dietetics, and bachelor of science in nursing. Although not often considered in terms of interprofessional care, these 3 practicing professions may be the only health care providers in secondary and higher education environments. Moreover, athletic trainers are being integrated into hospital organizations where dietitians and nurses provide important collaborations to ensure quality patient care. Students in these 3 professional programs participated in this study. All students in these programs were professional-level students rotating through various clinical experiences and being integrated into health care environments. This event was a product of a newly developed IPE working group among these 3 clinical disciplines within the College of Health Sciences (COHS). This group of participants represents a unique blend of professions for IPE.

The purpose of this study was to determine student perceptions of interprofessional valuing in prelicensure athletic training, dietetics, and nursing students who participated in an IPE tabletop simulation. The questions guiding this statistical analysis strategy sought to answer the following research questions:

1. Was there a statistically significant difference in Interprofessional Socialization and Valuing Scale (ISVS) scores among the 3 disciplines of athletic training, dietetics, and nursing?
2. Was there a statistically significant difference in ISVS scores between students who had reported previous participation in an IPE and those who had not previously participated in an IPE event?

This project is significant in that participants were prelicensure and from disciplines not commonly teamed in the literature. Many studies have addressed clinical situations in typical hospital/clinic settings, whereas this study used hypothetical scenarios in a tabletop format with disciplines commonly used in educational settings.

METHODS

Design and Informed Consent

This study used a survey design. A questionnaire was developed using Qualtrics software (Provo, UT) for distribution via e-mail to the participants. At the conclusion of the activity, all tabletop IPE simulation participants were sent individual e-mails asking for their voluntary participation. The e-mail included a link to the questionnaire. The survey included informed consent in accordance with the Sam Houston State University (SHSU) Institutional Review Board. The questionnaire included 9 sociodemographic items and the ISVS-24 adapted from King et al.¹⁵ Items were scored on a 5-point scale ranging from *strongly disagree* (1) to *strongly agree* (5). The questionnaire was delivered as a part of a larger data collection effort for this IPE event.

Setting

The tabletop simulation took place as a COHS IPE Working Group activity at SHSU. Funding was provided by COHS and an internal grant from the SHSU Office of Academic Planning and Assessment. The IPE event was conducted with minimal cost. The facility was located on the university campus in a large ballroom with round tables. A microphone was available for the debriefing process. Students were seated around 9 round tables in a large ballroom. Each participant had a name plate preprinted on cardstock. Case scenarios and an agenda for the day were placed in the center of each table along with materials needed for the event's opening icebreaker. During each case scenario, faculty in the role of facilitators monitored the groups by walking around the room, listening, and prompting. A buffet-style table with water and light refreshments was available for participants. The atmosphere was simple yet designed to model a professional development seminar/conference. The event was scheduled for 4 hours on a Friday morning when most students in the participating programs were available to participate. The primary cost was the investment of time by the faculty and staff for the pre-event planning phase and postevent during the data collection process. Other expenses included development of name plates, photocopies of scenarios and itinerary for participants, photocopies of debriefing questions, and itinerary for faculty and staff. Because there was no cost for use of the space, this activity was implemented for less than \$5 per student.

Participants

A convenience sample of prelicensure students enrolled in the professional programs of athletic training, dietetics, and nursing was recruited through program faculty to participate in a half-day tabletop IPE event. Students participated as part of one of their courses and/or received clinical hours for the activity. Prelicensure students from the 3 clinical disciplines participated (N = 40) in the tabletop simulation (athletic training = 12, dietetics = 9, nursing = 19). Of these participants, 36 completed the survey (athletic training = 9, dietetics = 8, nursing = 19). The athletic training students who participated were professional-level students in a 2-year undergraduate program (junior and senior level). Athletic training students participated as part of their clinical education requirements. Dietetics students who participated were first-year master's students in a 4-semester professional program. Dietetic students participated as part of their clinical education requirements. Undergraduate bachelor of science in nursing students voluntarily participated to earn clinical hours. Both junior first-year and senior second-year nursing students were invited to participate. Participant demographic information can be found in Table 1.

The athletic training and dietetics programs at this institution are much smaller than the bachelor of science in nursing program. The size difference of the interprofessional programs did not permit for a full class of nursing students to be involved, thereby restricting their participation to a sign-up system with a limited number of seats available. The interprofessional faculty who planned the event agreed that 2 or 3 nursing students at each table would be appropriate given that there are often more nurses collaborating in professional settings as compared with the number of dietitians and athletic trainers at a given worksite. However,

Table 1. Demographics (N = 36)

Characteristic	No. (%)
Sex ^a	
Male	7 (19.4)
Female	29 (80.6)
Discipline	
Dietetics	8 (22.2)
Athletic training	9 (25.0)
Nursing	19 (52.8)
Program level	
First year	20 (55.6)
Second year	10 (27.8)
Master's	6 (16.7)

^a average age = 24.03 ± 4.925.

the faculty did want to control the ratio to facilitate student engagement from all disciplines. The smallest group represented was the dietetics program with 9 participants; therefore, we had 9 tables. The number of participants was limited by the smallest program to ensure that each discipline was represented within each tabletop team.

Instrument

The validity of the ISVS-24 was established using a sample of 124 respondents who were mostly female (82.3%) and included more than 11 health professions with the majority from occupational therapy (30.6%), nursing (21.0%), and physical therapy (8.9%).¹⁵ The ISVS-24 consists of 24 items (score range, 24–120) with 3 subscales. The 3 subscales include (1) self-perceived ability to work with others (Beliefs), (2) value in working with others (Attitudes), and (3) comfort in working with others (Behaviors). The Beliefs subscale (ISVS-1) includes 9 questions (score range, 9–45). The Attitudes subscale (ISVS-2) includes 9 questions (score range, 9–45). The Behaviors subscale (ISVS-3) includes 6 questions (score range, 6–30). The ISVS-24 reliability and internal consistency measures indicated moderate to excellent reliability with the coefficient α for the subscales¹⁵ ranging from .79 to .89. The coefficient α for the scale as a whole¹⁵ (24 items) was .90.

Procedures

Before this tabletop event, the faculty worked as an interprofessional team to develop scenarios that addressed programmatic learning objectives. As previously described by Collins et al.,¹⁶ it was important to this faculty group to design both a clinical and a community practice-based scenario that incorporated the skills and knowledge of all 3 disciplines. The accompanying assigned tasks also provided opportunity for each discipline to contribute to care solutions.

Nine round tables consisting of a minimum of 1 seat for each professional discipline were arranged in a ballroom setting. Student participants were assigned randomly to those tables. Each table and its associated participants created an IPE group. The event began with a 15-minute icebreaker activity allowing participants to introduce themselves to their table group. Half of all groups were given a designation of A and the other half given a designation of B. The A groups received the clinical scenario called “Stephanie” (Figure 1), and the B

groups received the community-based scenario called “Leon” (Figure 2). Students were given 30 minutes to work as a team to discuss the scenarios and address the accompanying tasks. After the group collaboration time, 20 minutes was allowed for debriefing. All A groups were brought together with faculty from each discipline to debrief, and all B groups convened with faculty from each discipline. A debriefing guide was used to assist the faculty with the debriefing process. Next, all groups received the opposite scenario to discuss and complete accompanying tasks. This was then followed by a second 20-minute debriefing session for all A and B groups. Finally, all tables convened for 20 minutes to engage in a large-group debrief. After the final discussion, students were allowed to access their email links to the postevent questionnaire containing the ISVS.

Data Collection and Analysis

Qualtrics software was used to collect questionnaire data, which were downloaded for use in IBM SPSS software (version 22; IBM Corp, Armonk, NY) for analysis. Descriptive statistics were used for sociodemographic data. The ISVS-24 data were analyzed using nonparametric statistics. The rationale for choosing nonparametric statistics was that the assumption of power used for parametric statistics was not met because of the convenience sample size. The sample size was dictated by the number of participants from each educational program, which inherently limited the number of participants and survey data. An independent-samples Kruskal-Wallis test was used to determine ISVS score differences (1) among the 3 disciplines and (2) between students who had and had not previously engaged in an IPE experience.

RESULTS

Demographics and discipline-specific participant numbers can be found in Table 1. A total of 40 students participated in the event, from whom 36 postevent surveys were available for analysis. The survey participants included athletic training (n = 9), dietetics (n = 8), and nursing students (n = 19).

The ISVS-24 has 3 constructs: Beliefs (ISVS-1; 9 items), Attitudes (ISVS-2; 9 items), and Behaviors (ISVS-3; 6 items). Survey participants (N = 36) had an overall mean ISVS score of 107.98 (SD = 9.83). A series mean was calculated for 2 respondents with missing data points; one had 2 missing values and the other had 1 missing value. The ISVS scores for each discipline were as follows: athletic training, mean ± SD = 106.12 ± 8.15; dietetics, 108.00 ± 12.62; and nursing, 108.85 ± 9.69. Table 2 provides the means for the ISVS constructs by discipline.

The ISVS-24 individual item means ranged from 3.08 to 4.76 on a 5-point Likert scale with a score of 5 indicating *strongly agree* and a score of 1 indicating *strongly disagree*. The highest mean item score of 4.76 was assigned to the following ISVS-24 items: “I have gained an enhanced awareness of the roles of other professionals on a team” (ISVS-2) and “I have gained greater appreciation of the importance of a team approach” (ISVS-2). The lowest mean item score of 3.08 was indicated for the item “I believe that interprofessional practice is difficult to implement” (ISVS-3). Table 3 provides the mean

Figure 1. Scenario A: Stephanie. Case templates used with permission from Kirk Armstrong, EdD, ATC, LAT, James Madison University.

IPE Simulation Case Name: Table Top A	
Case Name	Stephanie
Gender & Age	Female – 20 years old
Setting	University Student Health Center
Presenting Complaint	Fatigue Difficulty concentrating Doing poorly on coursework
Key Objectives	Collaborate with IP Team to determine plan of care for patient.
Brief Summary	<p>This individual presents to a University Student Health Center complaining of fatigue and having difficulty with course work. During the history, the healthcare provider learned that s/he experienced a recent break-up. Further, this individual had a sports injury where they suffered a grade III ACL sprain during a recreational basketball game. They are scheduled to have reconstructive surgery one week from today.</p> <p>Social history: Patient reports drinking alcohol 3-4 days per week, and has approximately 4 drinks per day. Patient does not smoke, use tobacco, or nicotine products. Patient is sexually active with partner and reports using protection.</p> <p>Vitals: Height = 66" Weight = 110 lbs Pulse = 100 bpm Respirations = 20 rpm Blood Pressure = 118/76 Temperature = 99 degrees F Oxygen Saturation = 97%</p> <p>Exam Findings: Exam of ears, nose, and throat appear normal. Heart and lungs sounds are normal. Normal abdominal exam. Although the patient does report knee pain and difficulty ambulating on crutches, this is not his/her primary complaint.</p> <p>Urine Color: Dark Yellow</p>
Tasks for Students	<ol style="list-style-type: none"> 1. What are some additional questions you want to ask this patient? 2. What are a list of possible diagnoses for this patient? 3. What are your next action steps as a healthcare team? 4. Determine a plan of care for your patient.
Designed for	IPE Team: Nursing, Nutrition & Food Science, Athletic Training
Case Authors	Williams, Zinn, Camel, Grahovec
Date	February 28, 2017

scores for each item on the ISVS, indicating an overall positive experience reported by participants.

The independent-samples Kruskal-Wallis test was computed for the 3 ISVS constructs and total ISVS scores of the 3 disciplines. There was no statistically significant difference among disciplines on the ISVS ($\chi^2 = 0.915$, $P = .633$, $df = 2$), and no significant difference on the ISVS subscales (Beliefs: $\chi^2 = 1.095$, $P = .578$, $df = 2$; Attitudes: $\chi^2 = 1.497$, $P = .473$, $df = 2$; Behaviors: $\chi^2 = 0.343$, $P = .842$, $df = 2$). Additionally, each ISVS item was evaluated for differences among disciplines. Only the item stating “I am able to share and exchange ideas in a team discussion” from the interprofessional behaviors scale (ISVS-3) was significantly different ($P < .05$) by discipline ($\chi^2 = 8.893$, $P = .012$, $df = 2$). On this item specifically, athletic training students scored the lowest (mean rank = 11.13) compared with nursing (mean rank = 17.67) and dietetics (mean rank = 23.50).

Next, a Mann-Whitney test was conducted to compare students (ISVS factor sums and total ISVS score) who had previous experience with IPE and those who had no

experience with IPE. There was no statistically significant difference in ISVS scores between those who had previous IPE experience and those who did not ($U = 94.00$, $Z = -0.594$, $P = .552$). Additionally, there were no significant differences for the ISVS subscales (Beliefs: $U = 91.5$, $Z = -0.715$, $P = .475$; Attitudes: $U = 91.5$, $Z = -0.725$, $P = .468$; Behaviors: $U = 91$, $Z = -0.729$, $P = .466$). Individual ISVS items were assessed for differences between those individuals with IPE experience and those with no IPE experience. Although no significance was found, the group without previous IPE experience had the highest total ISVS score (mean \pm SD = 108.41 ± 10.96) and the highest scores with the ISVS constructs of Attitudes (42.30 ± 3.70) and Behaviors (25.41 ± 3.01); however, the group with prior IPE experience scored the highest on the construct of Beliefs (41.19 ± 3.64). One item, “I am able to share and exchange ideas in a team discussion” from the Behaviors subscale (ISVS-3), was significantly different ($U = 58$, $Z = -2.513$, $P = .012$). The students with no previous IPE experiences scored this item higher (mean rank = 11.33) compared with those students with previous IPE experience (mean rank = 18.28).

Figure 2. Scenario B: Leon. Case templates used with permission from Kirk Armstrong, EdD, ATC, LAT, James Madison University.

IPE Simulation Case Name: Table Top B	
Case Name	Leon
Gender & Age	Male– 10 years old
Setting	Community Clinic (Free to low SES population)
Presenting Complaint	Type II Diabetes Control and Obesity
Key Objectives	Collaborate with IP Team to determine plan of care for patient.
Brief Summary	<p>This is your fourth week volunteering at a free health clinic in your community. Recently you have noticed that there are a large number of children who are coming to your clinic to see Dr. Hamilton for control of their type II diabetes. One patient in particular stuck out to you, Leon, who is 10 years old and has type two diabetes with little resources at home, school, or within his community.</p> <p>You and your team identify this as a concerning problem for the population that you serve. Your team is in the process of planning for an upcoming health fair, and you all decide that there should be a focus on diabetes and obesity prevention strategies.</p>
Tasks for Students	<ol style="list-style-type: none"> 1. What education elements should be included in your health fair? 2. Identify community resources that are available to you and your community. 3. Organize educational resources that will be available for this event.
Designed for	IPE Team: Nursing, Nutrition & Food Science, Athletic Training
Case Authors	Williams, Zinn, Camel, Grahovec
Date	February 28, 2017

DISCUSSION

The findings from this study regarding the differences among disciplines are consistent with previous finding by De Vries et al¹⁷ and O'Brien et al,¹⁸ who found no differences in responses among disciplines using the ISVS instrument. However, unlike these previous studies, the combination of disciplines in this study was unique. Overall, students reported high, positive scores on the ISVS, indicating that all students had positive beliefs, attitudes, and behaviors towards IPE. The finding of no difference in ISVS scores among students in the disciplines of athletic training, dietetics, and nursing supports that students, regardless of discipline, had positive outcomes related to interprofessional valuing. The ISVS total and factor means were at the high end of the range, suggesting that students had positive perceptions of role and socialization. Specifically, within the Beliefs subscale (ISVS-1) students identified the belief that they were capable of teamwork. Within the Attitudes subscale (ISVS-2), students indicated that they valued working with others as part of a team. Last, in the Behaviors subscale (ISVS-3), participants reported

being comfortable working with other health care professionals. High scores across all participant groups may also indicate that a ceiling effect occurred, as the values overall were high among all participants. Students may have had preexisting positive beliefs, attitudes, and behaviors towards collaborative care. A pretest/posttest design should be used in future work to determine if the high scores are a result of the activity or preexisting perceptions of IPE. The timing of the administration of the questionnaire may also have influenced the findings towards positive responses, as the majority of participants completed the ISVS immediately after tabletop simulation.

High scores on the ISVS do align with stages 1 and 2 of the interprofessional socialization framework of Khalili et al,¹⁹ where individuals experience breaking down barriers among disciplines and begin to learn professional roles. A tabletop simulation is a nonthreatening educational tool that supports this process of recognizing the roles and contributions of each profession.

Table 2. Interprofessional Socialization and Valuing Scale (ISVS) Constructs by Discipline

Tool	Construct	No. of Questions	Maximum Score	Discipline, Mean ± SD		
				Dietetics	Athletic Training	Nursing
ISVS-1	Beliefs	9	45	39.13 ± 12.39	40.56 ± 3.28	41.82 ± 3.51
ISVS-2	Attitudes	9	45	43.38 ± 1.60	40.45 ± 3.77	41.58 ± 4.26
ISVS-3	Behaviors	6	30	25.50 ± 2.45	25.12 ± 2.37	25.43 ± 3.09
ISVS-total	Total	24	120	108.00 ± 12.62	106.12 ± 8.15	108.85 ± 9.69

Table 3. Interprofessional Socialization and Valuing Scale Item Means

Item	Factor	Mean ^a
I feel comfortable in accepting responsible delegated to me within a team	1	4.51
I feel able to act as a fully collaborative member of the team	1	4.59
I have gained a better understanding of my own approach to care within an interprofessional team	1	4.57
I feel comfortable in being accountable for responsibilities I have taken on	1	4.46
I am comfortable engaging in shared decision-making with clients	1	4.54
I am able to listen to other members of the team	1	4.68
I have gained a better understanding of the clients' involvement in decision-making around their care	1	4.49
I feel comfortable clarifying misconceptions with other members of the team about the role of someone in my profession	1	4.54
I more highly value open and honest communication with team members	1	4.62
I have gained more realistic expectations of other professionals on a team	2	4.65
I have gained an enhanced awareness of the roles of other professionals on a team	2	4.76
I see myself as preferring to work on an interprofessional team	2	4.54
I have gained an appreciation for the benefits in interprofessional teamwork	2	4.70
I have gained greater appreciation of the importance of a team approach	2	4.76
I feel comfortable initiating discussions about shared responsibilities for client care	2	4.53
I have gained an appreciation for the importance of having the client and family as members of the team	2	4.53
I believe that interprofessional practice will give me the desire to remain in my profession	2	4.54
I believe that interprofessional practice is not a waste of time	2	4.65
I feel comfortable debating issues in a team	3	4.46
I am comfortable being a leader in a team situation	3	4.22
I feel confident in taking on different roles in a team (ie, leader, participant)	3	4.46
I am able to share and exchange ideas in a team discussion	3	4.65
I feel comfortable speaking out within the team when others are not keeping the best interest of the client in mind	3	4.54
I believe that interprofessional practice is difficult to implement	3	3.08

^a Minimum = 1, maximum = 5.

There was a significant difference among the disciplines on the specific item “I am able to share and exchange ideas in a team discussion” from the Behaviors subscale (ISVS-3). The discipline with the lowest scores on this item were students from athletic training. This is concerning, but may be attributed to a few factors, including that these students were the newest group to engage in IPE. Athletic training students, along with nursing students, were junior- and senior-level undergraduate students whereas the dietetics students were master's level, which may have put them at an advantage on this item. Last, both athletic training and dietetics had the lowest number of participants at each table. This higher ratio of nursing students to athletic training and dietetics students may have contributed to hesitation during team discussion. The combination of the newness of IPE, age, experience, and unequal ratio among the professions in each group are all possible reasons to help explain why athletic training students may have reported more challenges in sharing and exchanging ideas. More work needs to be done here specifically with athletic training students to socialize into IPE so that they feel comfortable working with other health care disciplines.

Furthermore, there was not a significant difference in the ISVS scores for students with previous IPE experience and students with no previous IPE experience on the ISVS or the 3 ISVS factors. However, on the specific item “I am able to share and exchange ideas in a team discussion” from the Behaviors subscale (ISVS-3), there was a significant difference between students who reported no previous IPE experience and those who did have previous IPE experience. The group with no previous IPE experience reported higher scores on this item. It is difficult to interpret this finding, but it could be attributable to previous unfavorable IPE experiences that had begun to silence the participants. This supports the need for unique and positive IPE experiences and the continued benefit of those experiences within differing contexts and professional groups. This finding exposes a need for programmatic evaluation of IPE socialization and valuing from program admission to completion. Additional considerations include whether students have previous interprofessional work experiences and/or exposure to team-teaching learning strategies. Future research should include variables to evaluate these considerations in an effort to more specifically characterize the IPE experience. Recent work on the ISVS tool²⁰ has led to the development of the ISVS-21 and ISVS-9; the new ISVS scales should be considered for future endeavors.

CONCLUSION

Conducting a tabletop IPE event for prelicensure health care students is an efficacious and cost-effective educational intervention that may facilitate the development of interprofessional valuing and socialization. To better assess the impact of a tabletop IPE simulation on interprofessional valuing and socialization, a pre-post study should be conducted using the ISVS. If IPE can be implemented early in professional programs, with prelicensure students in a positive learning environment, it may have positive impacts on interprofessional practice. Implementation of IPE using a tabletop method can include participants from a variety of professions, such as physical therapy, physician assistant, counseling, and others with whom athletic trainers work. More research is needed examining the long-term effects of IPE programming

with prelicensure professional-level students. This is especially true within athletic training, where continued socialization into productive and positive health care teams is needed.

Interprofessional education is used across health care professions as an active learning strategy that helps prepare learners for effective collaboration in the workplace. Athletic training professionals must collaborate with members of many other health care professions to effectively and safely deliver care to patients. Athletic training students should be learning with, from, and about other health care professions to prepare for clinical practice. Further, IPE is a high-impact teaching practice that may facilitate critical thinking, problem solving, and communication, as well as other important collaborative skills.¹⁰ The importance of integrating IPE into athletic training education is reflected in the 2020 CAATE Standards.¹⁰ Programs should consider creative and effective ways to incorporate IPE into didactic and clinical education.

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